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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,173	01/17/2002	Anthony O. Banal	10318US01	1851

7590 04/11/2005

Attention: Eric D. Levinson
Imation Corp.
Legal Affairs
P.O. Box 64898
St. Paul, MN 55164-0898

EXAMINER	
HECKENBERG JR, DONALD H	
ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,173

Applicant(s)

BANAL ET AL.

Examiner

Donald Heckenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7,8,11-13,16 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7,8,11-13,16 and 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The indicated allowability of claims 7, 8, 16 and 22-28 is withdrawn in view of the newly discovered reference described below. Rejections based on the newly cited reference follow.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered

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therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7, 8, 11-13, 16 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorczyca et al. (U.S. Pat. Pub. No. 2002/0185759) in view of Van Hout et al. (U.S. Pat. No. 6,238,197; previously of record).

Gorczyca discloses an injection mold for disc information carriers (see for example ¶ 1). The mold is provided with mirror blocks (14) supporting stampers (22 and 23). As part of the stamper structure, Gorczyca includes managed heat transfer layers (12).

Gorczyca notes a problem with static charge buildup within the apparatus (¶ 29). Gorczyca solves the problem by using electrically conductive coatings which Gorczyca notes "allow the static charge to flow to a neutral site" (¶ 29). Gorczyca is therefore implicitly disclosing the mold be connected to a ground (the "neutral site") to discharge the static charge.

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While thus disclosing that mold needs to be provided with a non-resistive path to ground, Gorczyca does not disclose the specific connection - that is, for example, a path to ground coupled to the mirror block of the moving side, or path to ground coupled to the stamper(s). However, given the disclosure of the Gorczyca that it is necessary to ground the mold to dissipate the static charge, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have coupled used a ground strap coupled to the mirror blocks or stampers of the apparatus because these are definitive structures which are readily available for coupling within the apparatus and, moreover, the either of the structures would be effected by the static discharge problem noted by Gorczyca.

Gorczyca does not disclose how the stamper structure is connected to the mirror block. Instead, Gorczyca notes simply that the stamper is positioned in the mold cavity in a known manner (§ 33).

Van Hout, like Gorczyca, discloses an injection mould for making plastic objects such as disc-like information carriers (cl. 1, ll. 5-6). The mould comprises a first and second mold sides (22 and 23) with first and second mirror blocks (26 and

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27). A stamper (6) is provided to be held against the surface (29) of one of the mirror blocks.

Van Hout further notes one method of securing the stamper includes a vacuum means (cl. 7, ll. 55 and 56). In such an embodiment, there would inherently have to be vacuum ports to supply the vacuum, and thus, an air interface between the stamper and mirror block.

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have used a vacuum for securing the stamper of Van Hout in the apparatus because this is a known means for holding the structure as suggested by Van Hout. Accordingly, the modified apparatus would have an air interface between the stamper and mirror block.

It is noted that the claims alternatively recite combinations of the moving side and non-moving side comprising the stamper or stampers. Gorczyca disclose both sides of the apparatus to comprise stampers (22 and 23), but the reference is silent as to which side moves. However, one of ordinary skill in the art would clearly recognize that the apparatus could easily be modified to operate in a manner as such to make either of the sides move because an apparatus with either half as the moving side would still be able to perform the same molding process by achieving the same open and closed positions as

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required for operation of the mold, and thus be functionally equivalent.

With respect to claims 11 and 12, Gorczyca discloses that the stamper can be made from nickel (see for example ¶ 40). Gorczyca, however, does not disclose the mirror blocks to be provided with coatings.

Van Hout discloses that titanium nitrate coatings are known for use on the surface of mirror blocks to improve the surfaces durability (cl. 1, ll. 42-46). Van Hout also discloses that diamond-like carbon coatings are similarly useful for increasing the durability of the surface of mirror blocks (cl. 3, l. 61 - cl. 4, l. 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have provided titanium nitrate or diamond-like carbon coatings on the surfaces of the mirror block because these coatings increase the surfaces durability as suggested by Van Hout.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorczyca in view of Van Hout as applied to claims 7, 8, 11-13, 16 and 23-27 above, and further in view of Inaba et al. (U.S. Pat. No. 6,054,075; previously of record).

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Gorczyca and Van Hout disclose and suggest the apparatus as described above. Gorczyca and Van Hout, however, do not disclose a robotic arm.

Inaba discloses an injection molding apparatus. The apparatus includes a robotic arm coupled to a control unit for the purpose of receiving molded components from the apparatus (cl. 4, ll. 23-29 and cl. 5, ll. 44-58).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the apparatus suggested by Gorczyca and Van Hout as such to further include a robotic arm coupled to a control unit because this would allow for molded components to be automatically removed from the apparatus as suggested by Inaba.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (571) 272-1131. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Utech, can be reached at (571) 272-1137. The official fax phone number for

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the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<<http://pair-direct.uspto.gov>>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

 4-8-5
Donald Heckenberg
Patent Examiner
A.U. 1722